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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/054,248	11/13/2001	Satish Ananthaiyer	SC10984TS	3750

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EXAMINER

BURLESON, MICHAEL L

ART UNIT PAPER NUMBER

2626

DATE MAILED: 09/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/054,248

Applicant(s)

ANANTHAIYER ET AL.

Examiner

Michael Burleson

Art Unit

2626

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 14-20 is/are allowed.
- 6) ☒ Claim(s) 1, 21-23, 25 and 29 is/are rejected.
- 7) ☒ Claim(s) 2-13, 24, 26-28 and 30 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1,21-23,25 and 29 are rejected under 35 U.S.C. 102(b) as being anticipated by Najafi US 5442457.

3. Regarding claim 1, Najafi teaches that a back channel is provided by the signal of the FSK modulator (52), which is filtered by the band pass filter (54) (column 3, lines 35-46). This reads on a method for transmitting facsimile data over a channel, comprising receiving a frequency shift keying (FSK) signal; using the FSK signal to estimate the channel to obtain a channel estimation; determining a preemphasis shaping filter based on the channel estimation; applying the preemphasis shaping filter to the facsimile data to produce filtered facsimile data and transmitting the filtered facsimile data over the channel.

4. Regarding claim 21, Najafi teaches of a CPU (13) which is apart of the receiving machine, which receives multiple signals from phone lines and transmits them to a data pump (column 3, lines 23-30 and figure 3), which reads on a facsimile modem transmitter, a method for transmitting facsimile data from a facsimile modem over a

channel comprising of receiving a plurality of signals from a receiver terminal, wherein the receiver terminal is for receiving the facsimile from the facsimile modem transmitter. Najafi teaches that the data pumps split the channels, in which a narrow back channel is provided by the signal of the FSK modulator (52), which is filtered by the band pass filter (54) (column 3, lines 35-46), which reads on in response to receiving the plurality of signals, the facsimile transmitter using the plurality of signals to estimate the channel to obtain a channel estimation; determining a preemphasis shaping filter based on the channel estimation; applying the preemphasis shaping filter to the facsimile data and transmitting the filtered facsimile data to the receiver terminal.

5. Regarding claim 22, Najafi teaches that the phone lines are used to transmit data (column 3, lines 25-30), which reads on the plurality of signals are used for other purposes outside of channel estimation.

6. Regarding claim 23, Najafi teaches that the filter corresponds to the FSK signal (column 3, lines 40-45), which reads on the plurality of signals do not include coefficients corresponding to the preemphasis shaping filter.

7. Regarding claim 25, Najafi teaches of a CPU (13) which is apart of the receiving machine, which receives multiple signals from phone lines and transmits them to a data pump (column 3, lines 23-30 and figure 3), which reads on a facsimile modem transmitter for transmitting facsimile data over a channel stored via computer readable media. Najafi teaches that a back channel is provided by the signal of the FSK modulator (52), which is filtered by the band pass filter (54) and is then sent out (column 3, lines 35-46), which reads on a first set of instructions for receiving frequency shift

keying signals, a second set of instructions for using the FSK signals to estimate the channel to obtain a channel estimation, a third set of instructions for determining a preemphasis shaping filter based on the channel estimation, a fourth set of instructions for applying the preemphasis shaping filter to the facsimile data and a fifth set of instructions for transmitting the filtered facsimile data.

8. Regarding claim 29, Najafi teaches of a CPU (13) which is apart of the receiving machine, which receives multiple signals from phone lines and transmits them to a data pump (column 3, lines 23-30 and figure 3), which reads on a facsimile modem transmitter for transmitting facsimile data over a channel stored via computer readable media comprising a first set of instructions for receiving a plurality of signals from a receiver terminal, wherein the receiver terminal receives the facsimile data transmission. Najafi teaches that the data pumps split the channels, in which a narrow back channel is provided by the signal of the FSK modulator (52), which is filtered by the band pass filter (54) (column 3, lines 35-46), which reads on a second set of instructions for using the plurality of signals, in response to receiving the plurality of signals, to estimate the channel to obtain a channel estimation, a third set of instructions for determining a preemphasis shaping filter based on the channel estimation, a fourth set of instructions for applying the preemphasis shaping filter to the facsimile data and a fifth set of instructions for transmitting the filtered facsimile data to the receiver terminal.

Allowable Subject Matter

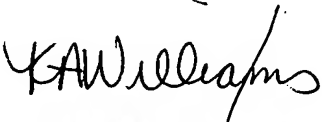
9. Claims 14-20 are allowed.
10. Regarding claim 14, prior art of record fails to teach of a pre-channel spectral unit coupled to the FSK detector and having an output which provides a pre-channel spectral estimation of the FSK signals, a post-channel spectral unit having an input coupled to the channel which receives FSK signals and an output which provides a post-channel spectral estimation of the FSK signals and a compare unit having a first input which receives the pre-channel spectral estimation and a second input which receives the post-channel spectral estimation and an output which provides a channel estimation based at least in part on a comparison of the pre-channel spectral estimation and the post-channel spectral estimation and a filter generating unit having an input which receives the channel estimation and an output which provides coefficients corresponding to a preemphasis shaping filter.
11. Regarding claim 18, prior art of record fails to teach of an average signal power unit having a first input coupled to the channel and a second input which receives the control signal and an output which selectively provides an average signal power at each FSK signal frequency based on the control signal and a filter generating unit which receives the average signal power at each FSK signal frequency and an output which provides coefficients corresponding to a preemphasis shaping filter.

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12. Claims 2-13, 24, 26-28 and 30 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication should be directed to Michael Burleson whose telephone number is (571) 272-7460 and fax number is (571) 273-7460. The examiner can normally be reached Monday thru Friday from 8:00 a.m. – 4:30p.m. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kimberly Williams can be reached at (571) 272-7471


KIMBERLY WILLIAMS
SUPERVISORY PATENT EXAMINER

Michael Burleson
Patent Examiner
Art Unit 2626



Mlb
September 15, 2005